

Classification of Chemical Occurrences

Analysis and Trends

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Problems with Previous Classification Program

- Prior to October 1999, chemical occurrences categorized by contractor under four levels of concern.
- Lack of clarity for classifying occurrences led to many inconsistencies.
- E.G., A “near-miss” binned under classes 1,2,or 3.

Present Classification Program

- In FY 2000, DOE HQ policy encouraged federalizing work.
- HQ committee formed to improve guidance and classification criteria.
- Occurrences categorized into 4 classes.
- Subclasses to accommodate greater detail.
- Class 3 and 4 incidents classified as cause/contributor to one or more actual/ potential consequences.

Class 1 Occurrences

- Characterized by serious energy release, or injury/exposure requiring medical treatment beyond first aid, or severe environmental damage.
- Subclasses: 1A – chemical injury, 1B – chemical exposure, 1 C – environmental, 1D – serious energy release.

Class 2 Occurrences

- Characterized by minor injury (first aid), exposure above DOE limits (i.e., PEL, TLV), or reportable environmental release (i.e., notification required to appropriate City, State and/or Federal agency).
- Subclasses: 2A – chemical injury, 2B – chemical exposure, 2C - environmental

Class 3 Occurrences

- “Near-misses” from being class 1 or 2.
- Inadequate analysis for chemical safety; violations of authorization bases, TSRs OSRs, USQs involving chemicals.
- Non-conformance with OSHA/EPA RMP requirements for threshold quantities of chemicals.
- Criticality concerns.
- Subclasses: 3A - chemical injury, 3B - chemical exposure, 3C - environmental, 3D - energy release, 3E – other.

Class 4 Occurrences

- Minor occurrences that are contributors to possible injury, chemical exposure, environmental threat, and energy generation.
- Subclasses: 4A – chemical injury, 4B – chemical exposure, 4C – environmental, 4D – energy release, 4E – other.

Quarterly Occurrence Data

		Total	class1	class2	class3	class4
99	4 th	106	4	26	37	39
00	1 st	94	0	24	19	51
	2 nd	72	2	11	15	44
	3 rd	94	2	18	25	49
	4 th	99	0	21	14	64
01	1 st	137	0	23	50	64
	2 nd	141	2	17	39	83
	3 rd	127	1	18	40	68

Detailed Quarterly Data

Classes 1 and 2

		1A	1B	1C	1D	2A	2B	2C	2D	2E
99	4 th	3	1			1	9	16		
00	1 st					1	3	20		
	2 nd	1		1		1	2	8		
	3 rd	1	1				2	16		
	4 th						4	17		
01	1 st						1	22		1
	2 nd		2			1	3	13		
	3 rd	1					3	15		

Detailed Quarterly Data

Classes 3 and 4

			3a	3b	3c	3d	3e	4a	4b	4c	4d	4e
99	4 th		14	9	11	16	10	4	8	25	11	6
00	1 st		8	2	6	10	5	8	9	29	10	10
	2 nd		5	6	4	3	2	13	12	22	12	5
	3 rd		9	5	6	7	9	9	6	28	12	8
	4 th		5	1	8	5	4	3	15	48	4	15
01	1 st		8	3	7	10	38	14	9	42	17	18
	2 nd		5		9	6	29	7	13	54	8	32
	3 rd		8	2	4	7	29	15	12	28	14	24

Customized Occurrence Reports

EH chemical safety website

Enter dates of interest

Select class(es) and subclass(es)

Generate listings – options:
occurrence descriptions and/or
numerical totals